



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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**MAY 03 2012**

Ref: 8EPR-N

Mike Stiewig, Field Office Manager  
Bureau of Land Management  
Vernal Field Office  
170 South 500 East  
Vernal, Utah 84078

Re: Greater Natural Buttes Final Environmental  
Impact Statement; CEQ # 20120096

Dear Mr. Stiewig:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Final Environmental Impact Statement (EIS) for the Greater Natural Buttes Project (GNB), prepared by the Bureau of Land Management (BLM). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

**Project Background and General Comments**

The GNB Final EIS analyzes environmental impacts associated with a proposal by Kerr-McGee Oil & Gas Onshore LP (Operator), a wholly owned subsidiary of Anadarko Petroleum Corporation, to conduct infill development on its existing oil and gas leases within the Greater Natural Buttes field in the Uinta Basin of Utah. The Preferred Alternative selected by the BLM, the Resource Protection Alternative, consists of drilling of 3,675 wells at 40-acre spacing, resulting in approximately 1,484 new well pads, with the remainder of the new wells directionally drilled from new or existing well pads. Estimated new surface disturbance from the project would be 8,147 acres.

The EPA appreciated the opportunity to work closely with the BLM in preparation of the Air Quality Supplement to the Draft EIS. We are pleased with the outcome of this effort and hope our collaboration can continue. The Final EIS addresses almost all the concerns we raised based on our review of the Draft EIS. We now have had a chance to review the Final EIS and offer the following remaining comments involving air quality and protection of water resources.

## **Air Quality**

The Final EIS includes a thorough analysis of air quality and many applicant committed environmental protection measures to reduce air quality impacts. We strongly support the natural gas or liquid natural gas drilling rig engine pilot project. We also note that the current low price of natural gas would seem to support increasing use of greater use of natural gas drilling rigs, which we also encourage because this is a highly effective air pollution control measure (as compared to Diesel-fired engine use). More specifically, natural gas engines emit only one fifth as much NO<sub>x</sub> as a Tier IV diesel engine.

We also support the commitment to employing an adaptive management strategy to further reduce ozone precursor emissions if necessary in the future. This is particularly important because of the existing data showing high winter-time ozone concentrations in the Uinta Basin, and the lack of modeling information to predict with confidence the level of control required to prevent adverse regional ozone impacts. Given the need for improved ozone modeling information, the EPA supports the BLM's commitment as part of the adaptive management strategy to remodel project-specific ozone impacts within two years of signing the ROD. The EPA understands from reviewing the Final EIS that the revised ozone modeling will incorporate substantial improvements including:

- Updated emissions inventory information;
- Additional ambient air quality monitoring data;
- Updated local meteorological data; and
- An improved modeling protocol vetted through Utah BLM's interagency air quality technical workgroup.

This future modeling is one of several key triggers described in the adaptive management strategy that may determine a need for additional mitigation. We also understand and strongly support the commitment that the applicant committed BMPs and the adaptive management strategy for ozone impacts will be documented in the ROD, and we support the BLM's commitment to reevaluate the measures necessary to prevent adverse impacts to ozone in the Uinta Basin as additional information becomes available in the future.

One notable difference between the Supplement and the Final EIS is that revised air quality modeling for near-field impacts no longer shows predicted exceedances of the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard. The EPA understands that this change is due to the use of revised modeling assumptions and updated modeling guidance in the Final EIS. The reason for the change in predicted impacts would be apparent to a technical expert reviewing the modifications to the Air Quality Technical Support Document (Appendix G). However, for future NEPA projects where such a noteworthy change in predicted impacts occurs between the Draft and Final EIS, we recommend that the Final EIS include a brief summary, in layman's terms, of the reason for the change.

## **Protection of Water Resources**

The Final EIS for GNB contains a significantly improved characterization of both surface water and groundwater resources, including:

- Additional data on current and historical water quality conditions in Willow Creek, which is impaired for total dissolved solids (TDS);

- A summary table and discussion of water quality in other surface water bodies in the project area;
- Additional information on water quality in project area aquifers; and
- A new table in Appendix I to describe underground water rights within one mile of the project area, including the depth and use of the wells.

The Final EIS also includes discussion of the potential impacts associated with oil and gas development, including hydraulic fracturing and disposal of produced water. The BLM has provided additional information on processes and methods used for protection of water resources during permitting and development of oil and gas wells. These additions to the Final EIS provide a noticeably better understanding of the character of water resources and the potential impacts to water resources in the GNB project area.

Another key addition to the Final EIS is the Long-Term Monitoring Plan for Water Resources, which greatly improves the BLM's ability to detect and mitigate unanticipated impacts, thereby reducing potential impacts to groundwater and surface water. We strongly support the BLM for development of this plan, and offer our continued assistance for finalizing the monitoring network details.

### **Record of Decision and Permitting Process**

In closing, we wish to thank the BLM for its efforts and stress the importance of taking follow-up steps to ensure that the Operator fully complies with the applicant committed best management practices (BMPs) and BLM mitigation requirements and that the BLM take its own steps to ensure the anticipated impacts remain mitigated through inspections and enforcement. We understand and support that, as part of the Preferred Alternative, the many important environmental protection measures discussed in the Final EIS will be documented in the ROD, developed into operating conditions during the site-specific permit (e.g. Application for Permit to Drill) approval process and subsequently enforced.

Thank you for the opportunity to review this Final EIS. If you have any questions or would like to discuss our comments, please contact me at (303) 312-6925. You may also contact Molly Vaughan, lead reviewer for this project, at (303) 312-6577 or by email at [vaughan.molly@epa.gov](mailto:vaughan.molly@epa.gov).

Sincerely,



Suzanne J. Bohan  
Director, NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation



